I have followed with great concern the Broadband Over Power Line (BPL) issues. The concept of providing Internet access to the greatest number of subscribers nationwide is an admirable goal. However, the choice of this technology over all others raises serious concern.

The major problem with BPL is the generation of high levels of Radio Frequency Interference (RFI) over a broad range of the High Frequency (HF) spectrum within which BPL operates. The interference levels are great enough as to make reception of all types of radio signals via conventional communications systems impossible. RFI suppression methods would have to be widely deployed, increasing BPL costs to the subscribers and ultimately to the power company customer.

In preparation for Y2K, during times of unusually active solar weather or potential damage by destructive Electromagnetic Pulse (EMP) perpetrated by terrorists or other sources, scientists and engineers implement strategies to keep communications systems and paths operational. Yet BPL has the potential of long-term disruption of the same radio communications systems we have so diligently, and at great cost, set out to protect.

At greatest risk is the HF spectrum between 2 and 50 MHz. Within this frequency range are many services including government licensees (FEMA), long-range air traffic, maritime and ship to shore, International Shortwave Broadcasters, and part of the Amateur Radio Service.

Early tests show that implementation of BPL will make this part of the communications spectrum unsuitable for the traditional conventional radio communications systems enjoyed by the services mentioned. Loss of the spectrum can compromise national security and will negatively impact the Amateur Radio Service that has traditionally served the nation with emergency communications in times of disaster.

Testing has also shown that transmitters of very minimal power output can disrupt the BPL system causing loss of connectivity of local subscribers near the transmitters location.

Another question and issue is that of security. How easily will hackers be able to intercept BPL signals on a modified receiver, decode them and make illegal use of the hacked information?

Most engineering/new construction requires an Environmental Impact Study/Statement. I do not think BPL is exempt. A full RF Environmental Impact Study needs to be done by appropriate and qualified Electrical Engineers on all aspects of BPL and its impact on all services. All this then needs to be fully disclosed to all impacted services and those decision makers that are not financially vested in BPL implementation.

The overall consequences in costs alone to solve the problems of BPL implementation for both the Broadband subscriber and the licensed RF spectrum user will disqualify BPL as a viable broadband technology. There are better, less disruptive and more secure ways

to make the Internet universally accessible.